

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A signal processor, comprising:
 - a signal processing unit covered with a vacuum insulation layer in a vacuum vessel;
 - a cooling mechanism that cools said signal processing unit;
 - 5 a getter material of a heat-activation type that controls increase of gas pressure inside said vacuum insulation layer;
 - a heater that heats to activate said getter material, and;
 - 10 an electrification controller for supplying electric power to said cooling mechanism and to said heater and operative such that whenever power is supplied to said electrification controller after a power interruption condition, said electrification controller always first supplies power to said heater and thus switchingswitches said heater ON said heater in advance before supplying power to said cooling mechanism. cooling begins.
2. (Original) The signal processor according to Claim 1, wherein said signal processing unit comprises:
 - a band-pass filter for selecting a predetermined signal from a receiving signal input from an antenna terminal; and
 - 5 a low noise amplifier for amplifying an output from said band-pass filter to a predetermined level with low noise.

3. (Original) The signal processor according to Claim 1, wherein said electrification controller comprises:

a relay that switches electrification either to said cooling mechanism or said heater; and

5 a sequencer that controls said relay.

4. (Currently Amended) The signal processor according to Claim 1, wherein;

at least all or a part of wirings of said signal processing comprises unit makes up of a superconductive material, and

said cooling mechanism has a capability of cooling to cool said signal processing unit

5 so that until said superconductive material becomes superconducting in a superconductive state.

5. (Original) The signal processor according to Claim 4, wherein said superconductive material is a high-temperature superconductor having superconductive characteristics at a high temperature.

6. (Currently Amended) A signal processor, comprising:

a signal processing unit covered with a vacuum insulation layer in a vacuum vessel;

a cooling mechanism that cools said signal processing unit;

5 a getter material of a heat-activation type that controls increase of gas pressure inside said vacuum insulation layer;

a heater that heats to activate said getter material, and;

an electrification controller for supplying electric power to said cooling mechanism and said heater and operative, whenever power is started after a power interruption, to that

10 selectively switch switches ON said heater when before switching ON said cooling mechanism cooling begins and thereafter, selectively switches switch ON said cooling mechanism only after a predetermined condition is established.

7. (Currently Amended) The signal processor according to Claim 6, wherein “after said said predetermined condition is said established” equals “after equals “after comprises a passage of a certain period of time”.time.

8. (Original) The signal processor according to Claim 6, wherein said signal processing unit comprises:

a band-pass filter for selecting a predetermined signal from a receiving signal input from an antenna terminal; and

5 a low noise amplifier for amplifying an output from said band-pass filter to a predetermined level with low noise.

9. (Original) The signal processor according to Claim 6, wherein said electrification controller comprises:

a relay that switches electrification either to said cooling mechanism or said heater;

and a sequencer that controls said relay.

10. (Currently Amended) The signal processor according to Claim 6, wherein; at least all or a part of wirings of said signal processing comprises unit makes up of a superconductive material, and

5 said cooling mechanism has a capability to cool said signal processing unit until said superconductive material becomes in a superconductive state.

11. (Original) The signal processor according to Claim 10, wherein said superconductive material is a high-temperature superconductor having superconductive characteristics at a high temperature.

12. (Currently Amended) A cooling method of a signal processor that comprises:

establishing a vacuum insulation layer over a signal processing unit covered with a vacuum insulation layer;

5 cooling said signal processing unit using a cooling mechanism that cools said signal processing unit;

controlling the pressure of said vacuum insulation layer using a getter material of a heat-activation type that controls increase of gas pressure inside said vacuum insulation layer; and

10 heating said getter material using a heater to activate same; a heater that heats to activate said getter material

supplying power to said a heater and said cooling mechanism; and wherein;

whenever electric power is supplied after power interruption, always first supplying power to said heater is switched ON in advance of supplying power to said cooling mechanism when cooling begins.

13. (Currently Amended) A cooling method of a signal processor that comprises:

establishing a vacuum insulation layer over a signal processing unit covered with a vacuum insulation layer;

cooling said signal processing unit using a cooling mechanism that cools said signal

5 processing unit;

controlling the pressure of said vacuum insulation layer using a getter material of a heat-activation type that controls increase of gas pressure inside said vacuum insulation layer; and

heating said getter material using a heater to activate same; a heater that heats to
10 activate said getter material

supplying power to said a heater and said cooling mechanism; and wherein;
whenever electric power is supplied after power interruption, always first supplying
power to said heater is selectively switched ON when before supplying power to said cooling
mechanism cooling begins and thereafter, selectively switching ON said cooling mechanism
15 is selectively switched ON after a predetermined condition is established.

14. (Currently Amended) The cooling method of the signal processor according to Claim 13, wherein “~~after said~~ said predetermined condition ~~is said established~~” equals “~~after equals~~ “~~after~~ comprises a passage of a certain period of time”.~~time~~

15. (Currently Amended) The cooling method of the signal processor according to Claim 13, ~~implementing a change over of~~ wherein selectively switching ON said cooling mechanism is performed using switching cooling by using a sequence program.

16. (Currently Amended) A radio receiver comprising:

a signal processing unit covered with a vacuum insulation layer;

a cooling mechanism that cools said signal processing unit;

a getter material of a heat-activation type that controls increase of gas pressure inside

5 said vacuum insulation layer;

a heater that heats to activate said getter material; and

an electrification controller ~~for supplying electric power to said cooling mechanism~~
~~and to said heater and operative such that whenever power is supplied to said electrification~~
~~controller after a power interruption condition, said electrification controller always first~~
~~supplies power to said heater and thus switching said heater ON in advance before supplying~~
~~power to said cooling mechanism that switches ON said heater in advance before cooling~~
10 ~~begins.~~

17. (Currently Amended) A radio receiver, comprising:

a signal processing unit covered with a vacuum insulation layer;

a cooling mechanism that cools said signal processing unit;

a getter material of a heat-activation type that controls increase of gas pressure inside

5 said vacuum insulation layer;

a heater that heats to activate said getter material, and;

an electrification controller that, whenever power is reestablished after a power interruption, always first selectively switches ON said heater when cooling begins and thereafter selectively switches ON said cooling mechanism only after a predetermined condition is established.

18. (Currently Amended) A cooling method of a radio receiver that comprises:

establishing a vacuum insulation layer over a signal processing unit covered with a vacuum insulation layer;

cooling said signal processing unit using a cooling mechanism that cools said signal

5 processing unit;

controlling the pressure of said vacuum insulation layer using a getter material of a heat-activation type that controls increase of gas pressure inside said vacuum insulation layer; and

heating said getter material using a heater to activate same; a heater that heats to

10 activate said getter material;

supplying power to said a heater and said cooling mechanism; and wherein;

whenever electric power is supplied after power interruption, always first supplying power to said heater is switched ON in advance before supplying power to said cooling mechanism cooling begins.

19. (Currently Amended) A cooling method of a radio receiver that comprises:

~~establishing a vacuum insulation layer over a signal processing unit covered with a vacuum insulation layer;~~

~~cooling said signal processing unit using a cooling mechanism that cools said signal processing unit;~~

~~controlling the pressure of said vacuum insulation layer using a getter material of a heat-activation; type that controls increase of gas pressure inside said vacuum insulation layer; and~~

~~heating said getter material using a heater to activate same; a heater that heats to activate said getter material~~

~~supplying power to said heater and said cooling mechanism; and wherein;~~

~~whenever electric power is supplied after power interruption, always first supplying power to said heater is selectively switched ON when before supplying power to said cooling mechanism cooling begins and thereafter, selectively switching ON said cooling mechanism is selectively switched ON after a predetermined condition is established.~~